

EXHIBIT B**DISPUTED CLAIM TERMS, PHRASES OR CLAUSES FOR CONSTRUCTION
BY THE COURT**

Term, Phrase, or Clause	AOS's Proposed Construction and Evidence in Support	Fairchild's Proposed Construction and Evidence in Support
<p>configuring said gate runners for dividing said source contact area into several sub-contact areas with a set of area proportional ratios</p> <p>Found in 5,767,567, claim 7</p>	<p>PROPOSED CONSTRUCTION: the placement of gate runners divides the source contact area into sub-contact areas, and a set of area proportional ratios are defined by the ratios of the approximate areas of the sub-contact areas</p> <p>INTRINSIC EVIDENCE: 1:38-2:16, 4:14-53, 5:45-57, 6:49-65, 8:34-45, 8:46-58.</p> <p>Fig. 1A, Fig. 1B, Fig. 2B, Fig. 2C, Fig. 2D, Fig. 5, and related text.</p> <p>Prosecution History, Office Action Dated 09/17/97, page 2.</p> <p>EXTRINSIC EVIDENCE: Expert testimony.</p>	<p>PROPOSED CONSTRUCTION: Arranging the gate runners, after determining the total number of lead wires, to define several sub-contact areas that are not all equal in size and such that the ratio of lead wires to area is the same for each of the sub-contact areas</p> <p>INTRINSIC EVIDENCE: 1:16-2:22; 2:25-49; 2:57- 3:10; 3:67-5:57; 6:49-58; 6:66-7:16; 8:34-45; Figs. 1A, 1B, 2B, 2C, 2D, 5; Patent Application Serial No. 08/707929, pages 13-16; Office Action, dated September 12, 1997, page 2; Amendment and Remarks, dated December 9, 1997, page 2; Notice of Allowability</p> <p>DICTIONARY/TREATISE DEFINITIONS: <i>Webster's Encyclopedic Unabridged Dictionary of the English Language</i>, 1996, p. 1754 (several).</p> <p>EXTRINSIC EVIDENCE: Fairchild may submit an expert declaration from Dr. Richard A. Blanchard regarding the background of the technology of the patents-in-suit, the level of ordinary skill in the art, and why one of ordinary skill in the art would construe the claim terms as set forth herein.</p>

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<p>wherein the heavy body forms an abrupt junction with the well</p> <p>wherein the doped heavy body ... forms an abrupt junction with the well</p> <p>Found in 6,429,481, claims 1, 6, 15; 6,710,406, claims 1, 13; 6,828,195, claims 1, 21</p>	<p>PROPOSED CONSTRUCTION¹: the doping concentration gradient at the junction between the heavy body and the well is sufficiently high that further increasing the doping concentration gradient does not further reduce the breakdown voltage at the p-n junction between the well and the substrate</p> <p>A linearly graded junction is not an abrupt junction.</p> <p>INTRINSIC EVIDENCE: Prosecution History of '481 patent, Office Action dated December 5, 2000, pages 3-4.</p> <p>Prosecution History of '481 patent, Amendment dated June 4, 2001, pages 5-16.</p> <p>Prosecution History of '481 patent, Amendment dated October 18, 2001, pages 1-7.</p> <p>Prosecution History of '195 patent, Amendment dated October 20, 2003, page 9.</p> <p>Appeal Brief for Application No. 10/630,249 dated November 3, 2005 at page 8.</p> <p>EXTRINSIC EVIDENCE: The IEEE Standard Dictionary of Electrical and Electronics Terms, 6th ed. 1997, page 1.</p> <p>McGraw-Hill Electronics Dictionary, 5th Edition 1994, page 1.</p>	<p>PROPOSED CONSTRUCTION: The transition between the heavy body and the well occurs over a short distance relative to the depth of the well.</p> <p>INTRINSIC EVIDENCE: <u>'481 patent</u>: 2:65-3:1; 4:5-6; 5:27-38; 7:18-42; Fig. 5; 4:38-41. <u>'406 patent</u>: 3:3-6; 4:10-11; 4:42-44; 5:30-41; 7:22-46; Fig. 5. <u>'195 patent</u>: 2:39-42; 3:63-64; 4:29-31; 5:17-28; 7:11-36; Fig. 5. <u>'481 patent file history</u>: Application dated November 14, 1997 (including drawings); Preliminary Amendment dated September 5, 2000 (including remarks); Amendment dated June 7, 2001 (including remarks); Amendment Under 37 CFR 1.116 Expedited Procedure Examining Group 2815 dated December 31, 2001 (including remarks).</p> <p>EXTRINSIC EVIDENCE: Fairchild may submit an expert declaration from Dr. Richard A. Blanchard regarding the background of the technology of the patents-in-suit, the level of ordinary skill in the art, and why one of ordinary skill in the art</p>

¹ AOS contends that this claim element is indefinite. Fairchild does not agree.

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	<p>Sze, Physics of Semiconductor Devices, 1981, pages 74, 63-132.</p> <p>Ghandhi, Sorab K., Semiconductor Power Devices, 1977, page 298.</p> <p>Warner, R. M. Jr. & Grung, B.L., Transistors : Fundamentals for the Integrated-Circuit Engineer, 1990, pages 210, 446-455.</p> <p>Warner, R.M. Jr. & Grung, B.L., Semiconductor-Device Electronics, 1991, pages 305-308.</p> <p>Expert testimony.</p>	<p>would construe the claim terms as set forth herein.</p>
<p>compensating a portion of said body region by implanting material of said second conductivity type in said body region</p> <p>Found in 5,907,776, claims 1, 13, 25</p>	<p>PROPOSED CONSTRUCTION: implanting into the body region material having conductivity type opposite the conductivity type of the body region</p> <p>INTRINSIC EVIDENCE: Figures 1-6, 7A-7N, and related text.</p> <p>The entire specification (showing absence the term “peak concentration”).</p> <p>Prosecution History, Office Action dated May 15, 1998, pages 4-6.</p> <p>Patent No. 5,248,627 (Williams), 6:49-52 and Fig. 7.</p> <p>Patent No. 5,527,720</p>	<p>PROPOSED CONSTRUCTION: Implanting impurities of the second conductivity type into the body region such that the peak concentration of that implant is located in the body region, and such that the conductivity type at the location of the peak concentration of that implant does not change.</p> <p>INTRINSIC EVIDENCE: Figs. 1, 2, 3, 4, 5, 6, 7I, 7J, 7K; 2:8-3:31; 3:43-4:8; 5:8-6:13; 7:31-8:13; 9:5-20; 9:51-54; 9:65-10:15; 10:23-26; 10:45-50; 10:62-11:14</p>

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	<p>(Goodyear), 6:13-46 and Figures 1, 6, 7, and 8.</p> <p>Prosecution History, Amendment dated October 1, 1998, pages 12 – 18.</p> <p>EXTRINSIC EVIDENCE: The IEEE Standard Dictionary of Electrical and Electronics Terms, Sixth Ed. 1997, pages 186, 313.</p> <p>Donald A. Neaman, An Introduction to Semiconductor Devices, 2006, page 102.</p> <p>Modern Dictionary of Electronics, 7th ed. 1999, pages 138, 214.</p> <p>Wiley Electrical and Electronics Engineering Dictionary, 2004, page 130.</p> <p>Expert testimony.</p>	<p>EXTRINSIC EVIDENCE: Fairchild may submit an expert declaration from Dr. Richard A. Blanchard regarding the background of the technology of the patents-in-suit, the level of ordinary skill in the art, and why one of ordinary skill in the art would construe the claim terms as set forth herein.</p>
<p>resulting in avalanche current that is substantially uniformly distributed</p> <p>Found in 7,148,111, claim 29</p>	<p>PROPOSED CONSTRUCTION: the avalanche current at breakdown initiation is roughly equally distributed across the entire device</p> <p>INTRINSIC EVIDENCE: 2:36-46, 5:4-50, 11:7-11.</p> <p>'481 specification, 8:43-67, 9:5-8.</p> <p>'406 specification, 8:46-67, 9:5-8.</p> <p>EXTRINSIC EVIDENCE: Duncan A. Grant & John Gower, POWER MOSFETS Theory and Applications, 1989, pages 85 – 91.</p>	<p>PROPOSED CONSTRUCTION: Resulting in avalanche current that is approximately evenly distributed across the active region of the device.</p> <p>INTRINSIC EVIDENCE: <u>'481 patent</u>: 4:42-5:38; Figs. 1, 1A, 1B, 2; 4:15-29; 6:8-11. <u>'111 patent</u>: 4:11-24; 4:37-5:33; 6:3-6; 10:44-11:11; Figs. 1, 1A, 1B, 2.</p> <p>EXTRINSIC EVIDENCE: Fairchild may submit an expert declaration from Dr. Richard A. Blanchard regarding the background of the technology of</p>

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	<p>B. Jayant Baliga, Power Semiconductor Devices, 1996, page 40.</p> <p>Expert testimony.</p>	<p>the patents-in-suit, the level of ordinary skill in the art, and why one of ordinary skill in the art would construe the claim terms as set forth herein.</p>
<p>applying a polysilicon mask for etching said polysilicon layer to define a plurality of polysilicon gates</p> <p>Found in 5,930,630, claim 1</p>	<p>PROPOSED CONSTRUCTION: the meaning of this phrase is clear and unambiguous to a person of skill in the art, and thus it need not be construed by the court</p> <p>INTRINSIC EVIDENCE: 3:58-65, 8:55-9:17, 9:48-56.</p> <p>Fig. 6 and related text.</p> <p>EXTRINSIC EVIDENCE: Expert testimony.</p>	<p>PROPOSED CONSTRUCTION: Applying a mask having a plurality of openings to allow the removal of areas of a polysilicon layer to form a plurality of polysilicon gates corresponding to the plurality of areas of the mask which are not open.</p> <p>INTRINSIC EVIDENCE: '630 patent: abstract; Figs. 5A, 5B; 4:48-5:13; 5:42-43; 6:65-7:23; 8:1-8:22.</p> <p>EXTRINSIC EVIDENCE: Fairchild may submit an expert declaration from Dr. Richard A. Blanchard regarding the background of the technology of the patents-in-suit, the level of ordinary skill in the art, and why one of ordinary skill in the art would construe the claim terms as set forth herein.</p>
<p>depth of the junction, relative to the depth of the well, is adjusted so that a transistor breakdown initiation point is spaced away from the trench in the semiconductor when voltage is applied to the transistor</p> <p>a location of the abrupt junction relative to the depth of the well is adjusted so that a</p>	<p>PROPOSED CONSTRUCTION: selecting by repeated experiments or by computer simulation the relative depths of the well and the junction for the purpose of moving initiation of breakdown in the device toward the center of the body region between adjacent trenches</p>	<p>PROPOSED CONSTRUCTION: Fairchild does not believe construction of this term is required. The ordinary meaning should apply.</p>

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<p>transistor breakdown initiation point is spaced away from the trench in the semiconductor, when voltage is applied to the transistor</p> <p>depth of the heavy body relative to a depth of the well is adjusted so that breakdown of the transistor originates in the semiconductor in a region spaced away from the trenches when voltage is applied to the transistor</p> <p>depth of the heavy body junction relative to a maximum depth of the well, is adjusted so that a peak electric field in the substrate is spaced away from the trench when voltage is applied to the transistor</p> <p>Found in 6,429,481, claims 1, 6, 15; 6,710,406, claims 1, 13</p>	<p>INTRINSIC EVIDENCE: 5:8-17.</p> <p>Prosecution History of '481 patent, Application as Filed, pages 15-17.</p> <p>Prosecution History of '481 patent, Amendment dated November 4, 1999, pages 8-10.</p> <p>Prosecution History of '481 patent, Amendment dated August 31, 2000, page 9.</p> <p>Prosecution History of '481 patent, Amendment dated June 4, 2001, pages 9, 15-20.</p> <p>Appeal Brief for Patent Application No. 10/630,249, pages 9, 14, 15, and 18.</p> <p>EXTRINSIC EVIDENCE: Expert testimony.</p>	<p>INTRINSIC EVIDENCE: '481 patent: 2:29-32; 2:59-62; 9:38-44; 9:47-50; Figs. 1, 1A, 1B, 2; 4:16-29. '406 patent: 2:34-37; 2:64-67; 8:63-67; 9:5-8; 9:56-62; 9:65-10:2; Figs. 1, 1A, 1B, 2; 4:20-33. '481 patent file history: Amendment dated June 7, 2001 (including remarks); Amendment Under 37 CFR 1.116 Expedited Procedure Examining Group 2815 dated December 31, 2001 (including remarks).</p> <p>EXTRINSIC EVIDENCE: Fairchild may submit an expert declaration from Dr. Richard A. Blanchard regarding the background of the technology of the patents-in-suit, the level of ordinary skill in the art, and why one of ordinary skill in the art would construe the claim terms as set forth herein.</p>
<p>several</p> <p>Found in 5,767,567, claim 7</p>	<p>PROPOSED CONSTRUCTION: two or more</p> <p>INTRINSIC EVIDENCE: 5:31 – 6:20.</p>	<p>PROPOSED CONSTRUCTION: Three or more.</p> <p>INTRINSIC EVIDENCE: 1:16-2:22; 2:25-49; 2:57- 3:10; 3:67-5:57; 6:49-58; 6:66-7:16; 8:34-45; Figs. 1A, 1B, 2B, 2C, 2D, 5</p> <p>DICTIONARY/TREATISE DEFINITIONS: <i>Webster's Encyclopedic Unabridged Dictionary of the</i></p>

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	<p>EXTRINSIC EVIDENCE:</p> <p>Oxford English Dictionary (online), definition of several.</p> <p>Merriam Webster's Collegiate Dictionary, 10th edition, 1997, page 1073 .</p> <p>Microsoft Encarta College Dictionary, 2001, page 1324 .</p> <p>Expert testimony.</p>	<p><i>English Language</i>, 1996, p. 1754 (several).</p> <p><i>Webster's Encyclopedic Unabridged Dictionary of the English Language</i>, 1996, p. 1602-03 (ratio).</p> <p>EXTRINSIC EVIDENCE:</p> <p>Fairchild may submit an expert declaration from Dr. Richard A. Blanchard regarding the background of the technology of the patents-in-suit, the level of ordinary skill in the art, and why one of ordinary skill in the art would construe the claim terms as set forth herein.</p>
<p>acting as a field plate to extend the device breakdown voltage in the termination region</p> <p>forming a field plate around the termination region</p> <p>Found in 6,818,947, claims 1, 5, 6</p>	<p>PROPOSED CONSTRUCTION:</p> <p>a conductive ring formed in a trench in the termination region, resulting in a higher breakdown voltage in the termination region by modifying the depletion layer in the underlying silicon</p> <p>INTRINSIC EVIDENCE:</p> <p>1:43-67.</p> <p>B. Jayant Baliga, <i>Modern Power Devices</i>, 1992, pages 116-119 (incorporated by reference in the specification).</p>	<p>PROPOSED CONSTRUCTION:</p> <p>Acting as a conductive structure at or near the top surface of the substrate to increase breakdown voltage in the termination region.</p> <p>Forming a conductive structure at or near the top surface of the substrate that increases breakdown voltage in the termination region.</p> <p>INTRINSIC EVIDENCE:</p> <p>1:25-67; 2:2-48; 3:51-5:63; 6:12-36; 6:66-7:19; 7:20-8:15; Figs. 1, 2, 3A, 3B, 3C, 4A, 4B</p>

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	<p>EXTRINSIC EVIDENCE: U.S. Patent No. 5,233,215 (Baliga), 4:5-21, 5:19-24, 45-52, 5:66-6:9, 8:6-58, Fig. 4, Fig. 5, Fig. 6, and related text.</p> <p>Expert testimony.</p>	<p>EXTRINSIC EVIDENCE: Fairchild may submit an expert declaration from Dr. Richard A. Blanchard regarding the background of the technology of the patents-in-suit, the level of ordinary skill in the art, and why one of ordinary skill in the art would construe the claim terms as set forth herein.</p>
<p>a plurality of elongated inner runners extending in the same direction</p> <p>Found in 6,818,947, claim 6</p>	<p>PROPOSED CONSTRUCTION: multiple substantially parallel gate trenches filled with a conductive material extending in one direction across the active transistor region</p> <p>INTRINSIC EVIDENCE: Figures 2, 4A, 4B, and related text.</p> <p>EXTRINSIC EVIDENCE: Expert testimony.</p>	<p>PROPOSED CONSTRUCTION: Conductive structures formed in trenches extending in the same direction across the active area of the device.</p> <p>INTRINSIC EVIDENCE: 3:9-50; 4:16-5:54; 7:20-8:15; Figs. 1, 2, 3A, 3B, 3C, 4B</p> <p>EXTRINSIC EVIDENCE: Fairchild may submit an expert declaration from Dr. Richard A. Blanchard regarding the background of the technology of the patents-in-suit, the level of ordinary skill in the art, and why one of ordinary skill in the art would construe the claim terms as set forth herein.</p>
<p>isolation trench</p> <p>Found in 6,818,947, claim 1</p>	<p>PROPOSED CONSTRUCTION: a valley filled with dielectric material surrounded by sidewalls in the periphery of a semiconductor substrate that can prevent leakage into the substrate</p> <p>INTRINSIC EVIDENCE: 1:43-67, 3:51-62, 4:10-14, 4:33-46.</p> <p>Figures 1, 2, 3A, 3B, 3C, 4A, 4B, and related text.</p>	<p>PROPOSED CONSTRUCTION: An insulating structure, having a wall near the die edge, which electrically isolates the body region from the die edge.</p> <p>INTRINSIC EVIDENCE: 4:11-15; 4:33-36; 6:12-36; Fig. 1</p>

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	<p>EXTRINSIC EVIDENCE: McGraw-Hill Dictionary of Scientific and Technical Terms, 5th ed. 1994, page 2065 (defining trench).</p> <p>Merriam Webster's Collegiate Dictionary, 10th ed. 1997, page 1259 (defining trench).</p> <p>McGraw-Hill Dictionary of Scientific and Technical Terms 6th ed. 2003, page 2186 (defining trench).</p> <p>S.M. Sze, Semiconductor Devices : Physics and Technology, 2002, pages 500-501, 507-508, 513-515, 526.</p> <p>Ben G. Streetman & Sanjay Banerjee, Solid State Electronic Devices, pages 427-429.</p> <p>S.M. Sze, High-Speed Semiconductor Devices, 1990, pages 349-351.</p> <p>Expert testimony.</p>	<p>EXTRINSIC EVIDENCE: Fairchild may submit an expert declaration from Dr. Richard A. Blanchard regarding the background of the technology of the patents-in-suit, the level of ordinary skill in the art, and why one of ordinary skill in the art would construe the claim terms as set forth herein.</p>

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